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REMARKS

Claims 1 - 39 are pending in the present Application. Claims 1 has been amended, and claims 26 - 39 have been withdrawn, leaving Claims 1 - 25 for consideration upon entry of the present Amendment. Claims 26 - 39 have been withdrawn as a result of a restriction requirement based on a telephonic conversation with the Examiner on April 15, 2005. No new matter has been introduced by these amendments. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Claim Rejections Under 35 U.S.C. § 102(b)

Claims 1 - 15 stands rejected under 35 U.S.C. § 102(b), as allegedly being anticipated by U.S. Patent No. 6,258,182 to Schetky et al. (Schetky). Applicants respectfully traverse this rejection.

To anticipate a claim, a reference must disclose each and every element of the claim. *Lewmar Marine v. Barient Inc.*, 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987).

The Examiner states that "Schetky teaches a beta phase titanium alloy which overlaps or touches the boundary of the composition in instant claim 1. The Examiner further states that because Schetky teaches a substantially overlapping alloy composition, processed in a substantially similar method, then substantially the same properties, such as elastic recovery are inherently present." (Office Action dated June 13, 2005 page 3).

To anticipate a claim, a reference must disclose each and every element of the claim. *Lewmar Marine v. Barient Inc.*, 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987).

Schetky et al. disclose a substantially nickel-free beta phase titanium alloy comprising between 10.0-12.0 wt% Mo, 2.8-4.0 wt% Al, 0.0-2.0 wt% Cr and V, 0.0-4.0 wt % Nb, with the balance being titanium. (see Abstract))

As currently amended, instant claim 1 claims a composition consisting essentially of about 8 to about 9.75 wt% molybdenum, about 2.8 to about 6 wt% aluminum, up to about 2 wt% vanadium, up to about 4 wt% niobium, with the balance being titanium.

Since Schetky teaches 10 - 12 wt% molybdenum while the presently claimed invention is directed to a composition comprising about 8 to about 9.75 wt% molybdenum, Schetky

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cannot anticipate the claimed invention. Applicants respectfully request a withdrawal of the § 102 (b) rejection and an allowance of the claims.

Claims 1 and 15 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by JP 56-000241A (JP241) or U.S. Pat. No. 4,253,873 to Sagoi et al. (Sagoi) (Office Action dated June 13, 2005 page 4).

In making the rejection, the Examiner has stated that “ JP 241 or Sagoi teaches a Ti alloy comprising 2.0-5.0 wt% of Al, 1.0-9.0 wt% of Mo, 6.1-9.0 wt% of Cr, balance Ti.” (Office Action dated June 13, 2005 page 5).

JP241 and Sagoi teaches a titanium-based alloy of a high mechanical strength, which provides an excellent material of, particularly turbine blades, comprising 2.0 to 5.0% by weight of aluminum, 1.0 to 9.0% by weight of molybdenum, 6.1 to 9.0% by weight of chromium, traces of impurities, and titanium constituting the balance. (see Abstract) Comparative examples in the application are directed to 3.2 and 4.7 wt% of chromium. JP241 and Sagoi teach chromium, which is not presently claimed. JP241 and Sagoi however, do not disclose or teach the optional presence of vanadium or niobium both of which are presently claimed. For this reason at least JP241 and Sagoi do not teach all elements of the claimed invention and cannot anticipate the claimed invention. Applicants respectfully request a withdrawal of the § 102 (b) rejection and an allowance of the claims.

The Examiner has further stated that Claims 2 – 14 stand rejected under 35 U.S.C. § 102 (b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP241 or Sagoi. Applicants respectfully traverse this rejection.

In addition, for an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness, i.e., that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art had a reasonable expectation of success,

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determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

As currently amended, instant claim 1 claims a composition comprising about 8 to about 9.75 wt% molybdenum, about 2.8 to about 6 wt% aluminum, up to about 2 wt% vanadium, up to about 4 wt% niobium, with the balance being titanium. Claims 2 – 14 depend from Claim 1.

Both JP241 and Sagoi teach chromium, which is not presently claimed. They thus teach elements that are not present in the claimed invention.

Further, one of ordinary skill in the art would find no motivation in either JP241 or Sagoi to modify these references to remove chromium. Neither JP241 nor Sagoi suggest or disclose that it would be beneficial to remove chromium or to replace it with other metals.

Further both JP241 and Sagoi fail to teach or suggest cold working a titanium alloy to yield a titanium alloy having elastic properties. Once again one of ordinary skill in the art upon reading both JP241 and Sagoi and failing to discover any teachings of cold working would not seek to modify the reference.

Because JP241 or Sagoi fail to teach or suggest cold working a composition to improve its pseudo-elastic performance, these references cannot anticipate or render obvious Claims 2 - 14.

For these reasons at least, one of ordinary skill in the art would not have found it obvious to modify JP241 or Sagoi to obtain the presently claimed invention. Applicants respectfully request a withdrawal of the § 103 (a) rejection and an allowance of the claims.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1 – 25 stand rejected under 35 U.S.C. § 103(a), as allegedly being unpatentable over Schetky. (Office Action dated 06/13/2005, page 6) Applicants respectfully traverse this rejection.

In making the rejection, the Examiner states “Schetky et al. disclose examples within

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the instant composition range and cites specifically Table III and alloys 27, 28, and 36.” (Office Action dated June 13, 2005, page 6).

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness, i.e., that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Claim 1 as presently amended is directed to a composition that comprises about 8 to about 9.75 wt% molybdenum. Schetky, on the other hand, teaches a composition that comprises 10 to 12 wt% molybdenum. Schetky therefore does not teach all elements of the claimed invention.

In addition, there is no motivation for one of ordinary skill in the art to modify Schetky to arrive at the claimed invention. In the first instance, Schetky teaches away from the claimed invention. Table III of Schetky (which contains the alloys cited by the Examiner), in fact, teaches away from compositions having a molybdenum content of less than 10 wt%. Table III discloses alloys #27 and #36 comprising 9.5 wt% and 8.4 wt% Mo, respectively, but these alloys failed to display either pseudo-elastic strain recovery or shape memory strain recovery. Alloy #28 also fails to display any shape memory effect. A person of ordinary skill in the art upon reading this disclosure and discovering that compositions having less than 10.0 wt% molybdenum fail to exhibit significant pseudo-elastic strain recovery, would not be motivated to modify Schetky to reduce the amount of molybdenum.

Since Schetky does not teach all elements of the claimed invention and since there is no motivation to modify Schetky, Applicants believe that the Examiner has not made a *prima facie* case of obviousness over Schetky. Applicants respectfully request a withdrawal of the §

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103 (a) rejection and an allowance of the claims.

Double Patenting Rejections

Claims 1-25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over claims 1-52 of copending Application No. 10/609,004. (Office Action dated June 13, 2005 page 8).

Claims 1-25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over claims 1-49 of copending Application No. 10/755,034. (Office Action dated June 13, 2005 page 9).

Claims 1-25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over claims 15-24 of copending Application No. 10/869,359. (Office Action dated June 13, 2005 page 9).

Claims 1-25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over claims of copending Application No. 10/755,085. (Office Action dated June 13, 2005 page 10).

Applicant respectfully requests that the examiner withdraw the "provisional" obviousness-type double patenting rejections until the claims are in final form and condition for allowance; until such time, there is no double patenting and no way to determine double patenting. MPEP § 804.01.I(B)(1).

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It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,

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